

Amendments to the Claims:

1. (currently amended) A systematic modeling methodology for information personalization in an information system which automatically adjusts information content, structure, and presentation to an individual user comprising the steps of:

modeling information-seeking interaction sequences with the information system wherein each interaction sequence denotes a possible dialog between the user and the information system;

programmatically representing the interaction sequences in a computer program, wherein the interaction sequences can be initiated by the user out-of-turn;

creating a personalization system by partial evaluation of the computer program to produce a simplified program; and

generating a personalized information space for the user in a user interface from the simplified program.

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2. (original) The systematic modeling methodology for information personalization in an information system recited in claim 1, wherein a dialog in the step of modeling is a task-oriented information-seeking activity involving a list of information-seeking aspects comprising structural aspects specified by the user and terminal aspects as responses by the information system to the specified structural aspects.

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3. (original) The systematic modeling methodology for information personalization in an information system recited in claim 2, wherein the step of generating a computer program comprises the steps of:

defining a program variable for each structural aspect, called structural variables; defining a program variable for each terminal aspect, called terminal variables; organizing the set of interaction sequences in terms of conditional elements on structural variables, using constructs provided in a programming language;

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declaring all structural variables to be parameters in the program; and

if an interaction sequence produces values for terminal aspects, assigning values for respective terminal variables in corresponding programmatic representation.

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4. (original) The systematic modeling methodology for information personalization in an information system recited in claim 1, further comprising the step of compacting interaction sequences to determine a new set of interaction sequences having fewer states prior to the step of programmatically representing the interaction sequences in a computer program.

5. (original) The systematic modeling methodology for information personalization in an information system recited in claim 1, wherein the step of creating a personalization system by partial evaluation of the computer program uses a source-to-source transformation engine that simplifies the computer program for static values of some program variables.

6. (original) The systematic modeling methodology for information personalization in an information system recited in claim 1, wherein the step of generating a personalized information space for the user in a user interface is performed by mapping from the simplified program to the information space, in terms of a technology corresponding to the information system.

7. (original) The systematic modeling methodology for information personalization in an information system recited in claim 1, wherein the information-seeking interaction of the user is by means of a browser.

8. (original) The systematic modeling methodology for information personalization in an information system recited in claim 7, wherein the user interface is a browser window displaying an information space and a partial input specification window for facilitating user interaction.

9. (original) The systematic modeling methodology for information personalization in an information system recited in claim 7, wherein the browser supports a browsing hierarchy, said step of modeling being performed using a nested programmatic model.

10. (original) The systematic modeling methodology for information personalization in an information system recited in claim 7, wherein the user interface comprises two windows, a first window allowing the user to proceed with an interaction along the lines initiated by the information system and a second window allowing the user to take an initiative and personalize the interaction by specifying some aspect out-of-turn.

11. (original). The systematic modeling methodology for information personalization in an information system recited in claim 1, wherein the user can specify any aspect out-of-turn, further comprising the step of partially evaluating the program with respect to values for structural program variables.

12. (currently amended) The systematic modeling methodology for information personalization in an information system recited in ~~claim 7~~ claim 1, further comprising the steps of:

when a user specifies information-seeking aspects, representing the information-seeking aspects as values for structural program variables;

performing a partial evaluation with respect to the structural program variables;

and

converting a resulting program back to the information space.